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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/038,946	01/03/2002	Jerald S. Burkett	BUJ 005 P2	2174

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Kremblas, Foster, Phillips & Pollick
7632 Slate Ridge Boulevard
Reynoldsburg, OH 43068

EXAMINER

BINDA, GREGORY JOHN

ART UNIT	PAPER NUMBER
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3679

DATE MAILED: 11/21/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/038,946	BURKETT, JERALD S.	
	Examiner	Art Unit	
	Greg Binda	3679	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 June 2005 and 20 July 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 03 June 2005 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Drawings

2. The drawings are objected to because the drawings fail to show the “a geodesic isotenoid elliptical shape derived with reference to the angle of the fibers” recited in claim 8 & 13 and similarly recited in claim 17. According to the inventor, a geodesic isotenoid elliptical shape is not depicted by the fibers actually shown in the drawings. See item 6 of the declaration filed June 3, 2005.

3. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as “amended.” If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either “Replacement Sheet” or “New Sheet” pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will

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be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

4. Claims 17-20 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claims contain subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Claim 17, line 8 recites the limitation, "said shaft being open ended at both ends." There does appear to be a written description of the shaft 10 having open ends in the application as originally filed. To the contrary, Fig. 5 as originally filed shows solid lines across the opening at the end of the shaft, such solid lines indicate structure which closes off the opening.

5. Claims 8 & 13-20 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. Claims 8 & 13 recite the limitation "a geodesic isotenoid elliptical shape derived with reference to the angle of the fibers" and claim 17 recites the limitation, "fibers wound . . . in a geodesic isotenoid manner". However, in item 6 of the declaration filed June 3, 2005, the inventor states that a geodesic isotenoid elliptical shape "has nothing to do with angles". If, as stipulated by the inventor, a

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geodesic shape has nothing to do with angles of fibers, then it not possible to “derive” such a shape with reference to the angle of fibers as recited in the claims.

6. Claims 19 & 20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claims 19 & 20 recite that the composite material of the shaft of claim 17 further “includes elongated fibers”. It is not clear if these elongated fibers are the same as, or different from the elongated fibers recited in claim 17.

Claim Rejections - 35 USC § 103

7. Claims 1-7 & 9-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kreft, US 3,850,722 in view of Williams, US 3,553,978 (Williams). In Fig. 2a Kreft shows a shaft for the transmission of torsional loads (see also abstract lines 1 & 2), the shaft comprising: an elongated inner tube member 5 having opposed open ends; at least one end piece 3; a composite material (see “a synthetic fiber . . . wound over” in col. 4, lines 14-16) covering the inner tube member 5 and a convexly curved portion (see Fig. 1 and Adished outer contour≡ in col. 4, line 18) of the end piece 3. Torque is transmitted **directly** from the inner tube member 5 to the end piece 3 via the clamping ring 2. Torque is transmitted **indirectly** (i.e. through composite material) from the inner tube member 5 to the end piece 3 (see col. 4, lines 28-32). Fig. 3 shows and additional sacrificial layer 6b of fibers oriented 90 degrees relative to the inner tube 5. The angle of twist at failure of the inner tube member 5 and the composite material are the same because they both comprise the same materials of construction. In Fig. 2b Kreft shows all the

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fibers 6 oriented at a single angle (to the same extent that instant Fig. 4A shows all the fibers 50 oriented at a single angle α). The shaft in Kreft can be limited to speeds below the first natural frequency of the shaft and to operating loads below maximum operating strength.

Kreft does not show the end piece 3 including a knurled exterior where it is connected to the composite material. In col. 2, lines 10-12 and col. 3, lines 20-25 Williams teaches including a knurled exterior 18 on an end piece 12 where it is connected to a composite material 24 in order to provide a strong interlock that will not easily break between the end piece and the composite material. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the shaft of Kreft by including a knurled exterior on the exterior of the end piece 3 where it is connected to the composite material in order to provide a strong interlock that will not easily break between the end piece and the composite material as taught by Williams.

Response to Arguments

8. Applicant's arguments filed in June 3, 2005 have been fully considered but they are not persuasive.

a. In regard to item 4, applicant argues that the new matter in the claims is shown in the corrected drawings. However, applicant has failed to point out where the correction, and thus the limitation, is supported in the application as originally filed. A corrected drawing filed subsequent to the original file date does not show where a limitation is supported in an application as originally filed. Applicant has not explained why the solid lines/structure drawn across the opening in the shaft 5 in originally filed Fig. 5 should be

ignored other than to say they shouldn't have been there. Arguing that an originally drawn detail should be should be ignored simply because it contradicts what applicant now claims as his invention is not a persuasive argument.

b. In regard to item 7, applicant argues Kreft shows a winding covered by an end cap, not a winding covering an end cap as recited in the claims. However, no end cap is recited in the claims, wound over or otherwise. Kreft does show fibers 6 wound over a portion of the end piece 3 just as the instant drawings show fibers wound over a portion 20 of an end piece 14

c. In regard to item 7, applicant argues that the combination of Kreft and Williams fails to include all the limitations of the claims because it fails to include a geodesic isotenoid shape. However, a geodesic isotenoid shape is not recited in the rejected claims.

Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Conclusion

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after

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the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Greg Binda whose telephone number is (571) 272-7077. The examiner can normally be reached on M-F 9:30 am to 7:00 pm with alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Daniel P. Stodola can be reached on (571) 272-7087. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Greg Binda
Primary Examiner
Art Unit 3679